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STUDIES ON TIGER BEETLES. LXXIV. NOTES ON TWO POORLY KNOWN MEXICAN TAXA OF THE CHAUDOIR'S COLLECTION.

(COLEOPTERA: CICINDELIDAE)

In a recent paper which I published jointly with a Japanese colleague (CASSOLA & SAWADA, 1990) two new tiger beetle species were described from Yucatán, Mexico, i.e. *Habroscelimorpha wellingi* and *Brasiella maya*. However, it was subsequently suggested (W.D. SUMLIN III, pers. comm.) that these new species could merely represent junior synonyms, respectively, of *Cicindela yucatana* (Chaudoir i.l.) W. Horn, 1896, and *Cicindela cyanosparsa* Chaudoir, 1852.

In response to this possibility of synonymy, I visited the Paris Museum (MNHN, Entomology Department) to locate and examine Chaudoir's original specimens. Thanks to the courtesy of Thierry Deuve, Curator of the carabid collection, the search was successful for both taxa. Therefore I am now able to provide a definite assessment of the status of these poorly known Chaudoir's taxa.

1. The name *yucatana* was firstly mentioned in the entomological literature by CHAUDOIR (1865: 28), and applied to a species from Yucatán that the author listed between the Texan species *Cicindela severa* Laferté, 1841, and *C. pamphila* Chaudoir [both now placed,

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according to RIVALIER (1954: 259), in the genus *Habroscelimorpha* Dokhtouroff, 1883]. For neither *yucatana* nor *pamphila*, however, did Chaudoir provide any description, so these names remained as "nomina nuda".

While *pamphila* was subsequently described by J. Le Conte in 1873, a description of *yucatana* was given much later by Walther Horn, who wrote the following: "*Cic. yukatana* [sic!] Chd. i.l. = kleines ♀ von *C. severa* Laf. (Eine Schultermakel ist vorhanden; die anderen Flecke schwach verbreitert)" (HORN, 1896: 354). Thus, in the opinion of Horn, who apparently had examined Chaudoir's original specimen, *yucatana* was merely a small *severa* individual having slightly enlarged elytral markings.

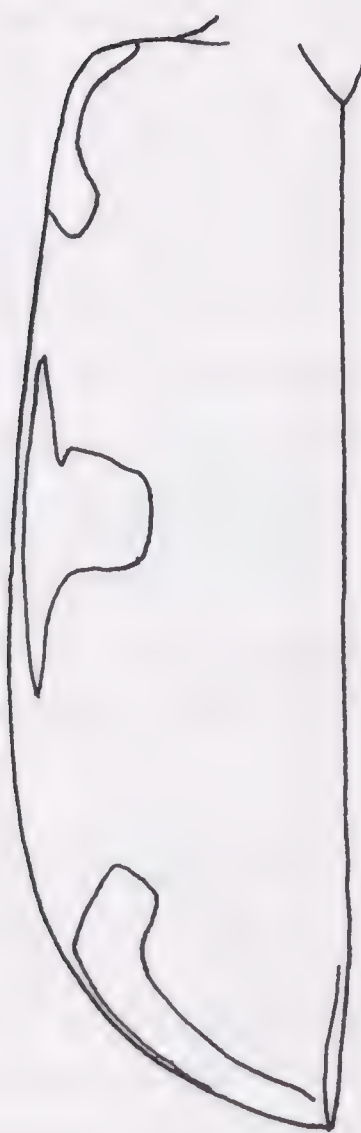
A few years later, however, HORN (1903: 219) redescribed *yucatana*, again as a variety of *severa*, in a much different way: "Var. statura paullo minore, margine laterali elytrorum ab humeris usque ad spinam suturalem (ut in *C. circumpecta* Laf. intus undulato) albo". It is evident that such a description had to have been based on specimens other than Chaudoir's original one, and it appears to effectively apply to our *H. wellingi* as well. Horn, however, cited *yucatana* as a variety or individual form ("cmpl-F") of *severa* in all of his subsequent catalogues (HORN, BECKER & HÖGE 1897: 182; HORN, 1905: 22; HORN, 1915: 384; HORN, 1926: 284).

In his review of the Mexican tiger beetles, CAZIER (1954: 261), although not having any specimens available for study, considered *yucatana* to be a *severa* subspecies with "humeral and middle elytral lunules well developed". This placement was more recently retained by WIESNER (1992: 216) as well. On the contrary JOHNSON (1993: 42), without making any attempt to locate and examine Chaudoir's type specimen, surprisingly published a re-description of *Cicindela yucatana* based on *H. wellingi* topotype specimens.

As a matter of fact, the original female specimen in Chaudoir's collection (MNHN), to which HORN (1896) initially referred, turned out to be a small *severa* specimen, as HORN (1896) had correctly stated at first. This specimen bears the labels "Differens Pila. Yucatan mer." and "*yucateca* [sic!] Chaud., Yucatan, Pilate", thus showing that it was originally owned by the American entomologist G.H. Pilate. The elytral markings of this specimen (fig. 1) fit Horn's original description (HORN, 1896) well, but not his subsequent one (HORN, 1903).

H. wellingi Cassola & Sawada, 1990, thus proved to be a much different species, which apparently was traded around by U.S. collectors for several years as *C. yucatana* W. Horn (W.D. SUMLIN, pers. comm.). It is easily and immediately recognizable from *H. severa*, apart from the general habitus and other minor characters, by means of the genae covered with white decumbent pubescence (*severa* has completely glabrous cheeks). Horn is likely to have used specimens of *wellingi* when giving his second description (HORN, 1903), but he apparently related his specimens to *yucatana*, without noticing the great differences between the two species.

Conclusively, the following synonymy has to be established:
Cicindela yucatana Johnson, 1993 (nec W. Horn, 1896) =
Habroscelimorpha wellingi Cassola & Sawada, 1990.



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Fig. 1 Left elytron of the original female specimen in Chaudoir's collection (MNHN) of *Cicindela yucatana* W. Horn, 1896 [= *Habroscelimorpha severa* (Laferté, 1841)].
 Fig. 2 Penis apex of the original male specimen in Chaudoir's collection (MNHN) of *Cicindela cyanosparsa* Chaudoir, 1852 [= *Brasiella hemichrysea* (Chevrolat, 1835)].

2. *Cicindela cyanosparsa* was described by CHAUDOIR (1852: 23) based on a single specimen brought back by G.H. Pilate from Yucatán. The author immediately determined it to be a near relative of *C. hemichrysea* Chevrolat, 1835 ("Très-proche... de l'*Hemichrysea* Chevrolat") and reported it to be a male ("je ne connais pas la femelle"). Moreover, he stated it lacks any white elytral markings ("l'exemplaire que je possède n'offre pas de trace de points blancs"). In a subsequent paper (CHAUDOIR 1865: 23), however, he listed it under *hemichrysea* as a doubtful variety ("var?"). In present-day taxonomy (RIVALIER, 1954: 263; WIESNER, 1992: 203), this species is now placed in the genus *Brasiella* Rivalier, 1954.

All subsequent papers and catalogues have considered *cyanosparsa* to be synonymous with *hemichrysea* [HORN, BECKER & HÖGE, 1897: 182 ("var. *signatura* deficiente"); HORN, 1903: 219; HORN, 1905: 20; HORN, 1915: 407; HORN, 1926: 309; CAZIER, 1954: 286]. WIESNER (1992: 203), however, considered it to be a subspecies of *Brasiella argentata*, incorrectly stating it is from Gaudeloupe. In his revision of the *Brasiella*-species of the *argentata*-group, RIVALIER (1955) did not mention *cyanosparsa*, but he pointed out that, contrary to the figures given by HORN (1938: 51, pl. 80, figs. 11 and 12), Chevrolat's *hemichrysea* type specimen has the elytral markings nearly obsolete.

In the description of *Brasiella maya* from Yucatán (CASSOLA & SAWADA, 1990: 6), a major distinguishing character from *B. hemichrysea* was found to be the stronger striation of head and pronotum. The supra-ocular and interocular striae of *hemichrysea* are very fine, and according to CHAUDOIR (1852: 23) those of *cyanosparsa* are even finer ("Tête... moins fortement ridée"). Synonymy of *maya* with *cyanosparsa* appeared, therefore, to be very unlikely.

A check of Chaudoir's collection (MNHN) showed, under the label "*cyanosparsa* Chaud., Yucatan, Dupont", a male specimen bearing no labels and a female specimen labelled "8" and "Yucatan, Pilate". Apart from the apparent mislabelling which makes Pilate's specimen to be a female (contrary to Chaudoir's statement), both specimens were determined to be *B. hemichrysea*, identical with other *hemichrysea* specimens in my collection also coming from Yucatán. The penis apex of the male (fig. 2) is also typical of *hemichrysea*.

Thus *Brasiella maya*, which apparently also was traded around for several years under the erroneous name of *cyanosparsa* (W.D. SUMLIN,

pers. comm.), is a valid species, which sympatrically lives with *B. hemichrysea* in the same area, and whose eco-ethological requirements appear to deserve special attention by collectors when in the field.

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ABSTRACT

The type specimens of *Cicindela yucatanana* W. Horn, 1896, and *Cicindela cyanosparsa* Chaudoir, 1852, were located and studied in the Chaudoir collection (Paris Museum), and they proved to be conspecific, respectively, with *Habroscelimorpha severa* (Laferté, 1841) and *Brasiella hemichrysea* (Chevrolat, 1835). The validity of the species *Habroscelimorpha wellingi* Cassola & Sawada, 1990, and *Brasiella maya* Cassola & Sawada, 1990, was therefore confirmed.

RIASSUNTO

Gli esemplari originali di *Cicindela yucatanana* W. Horn, 1896, e di *Cicindela cyanosparsa* Chaudoir, 1852, sono stati ritrovati ed esaminati nella collezione Chaudoir, presso il Museo di Parigi, e si sono dimostrati appartenere, rispettivamente, ad *Habroscelimorpha severa* (Laferté, 1841) e *Brasiella hemichrysea* (Chevrolat, 1835). La validità delle specie *Habroscelimorpha wellingi* Cassola & Sawada, 1990, e *Brasiella maya* Cassola & Sawada, 1990 ne risulta pertanto pienamente confermata.